

Figure 2

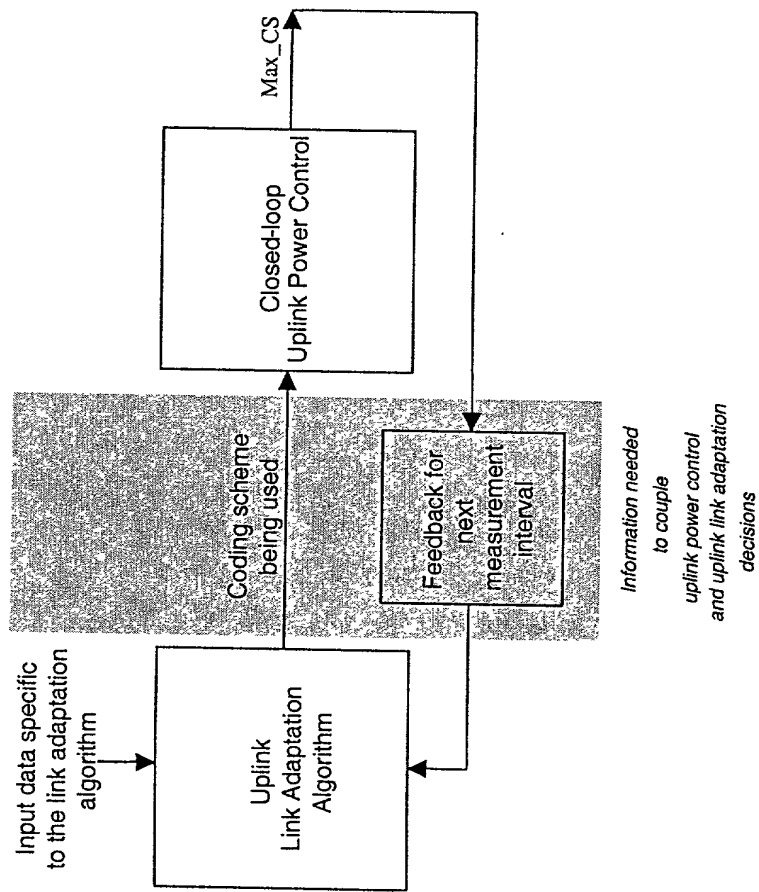


Figure 3

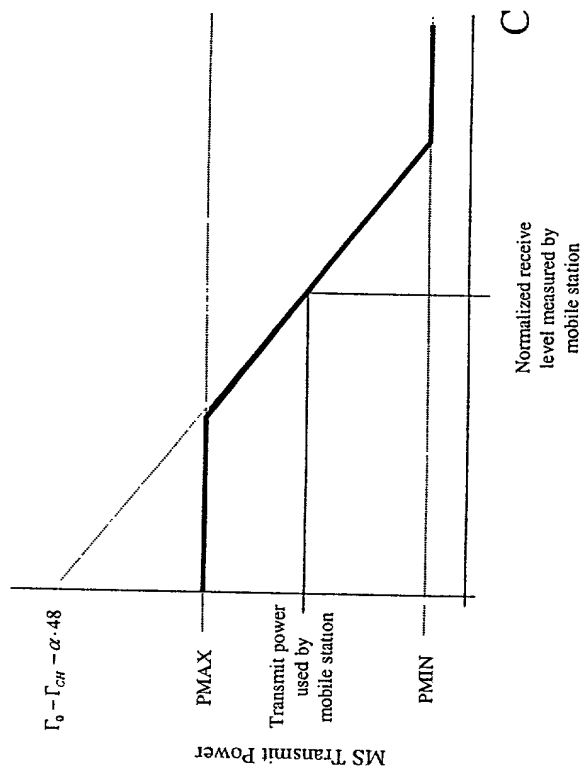


Figure 4

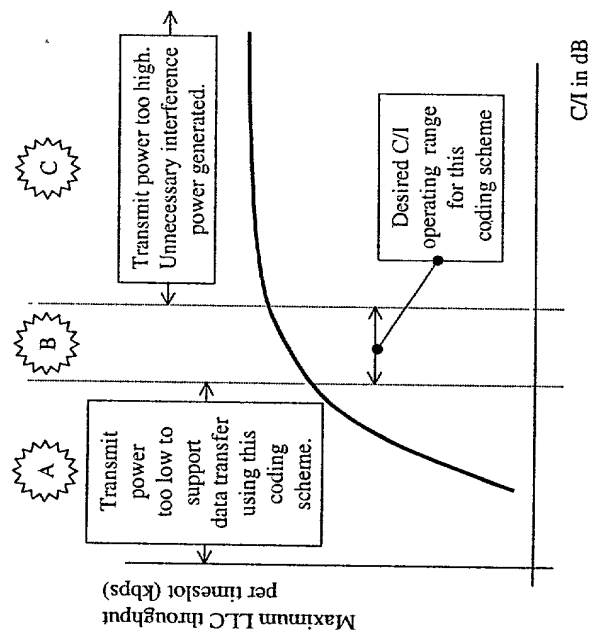


Figure 5

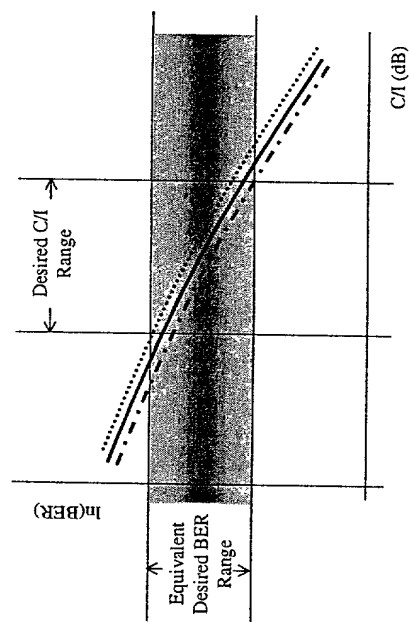


Figure 6

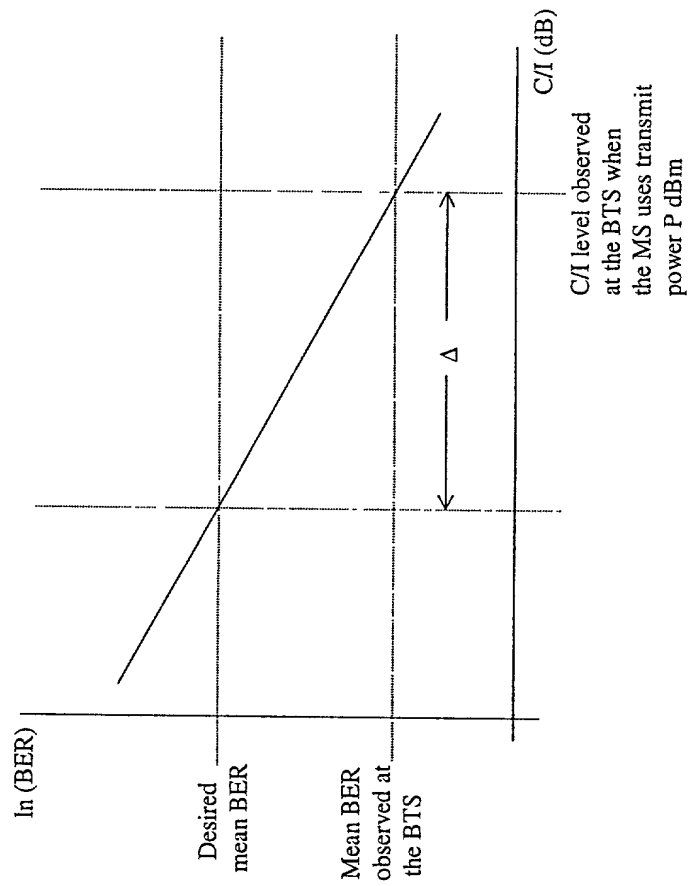


Figure 7

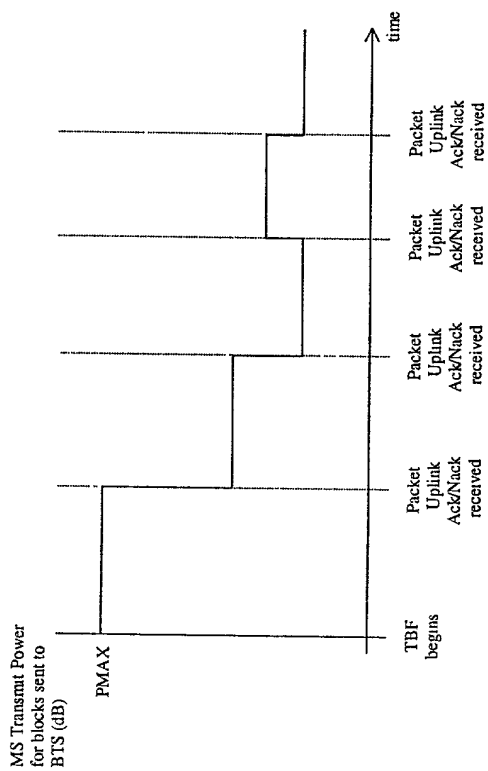


Figure 8

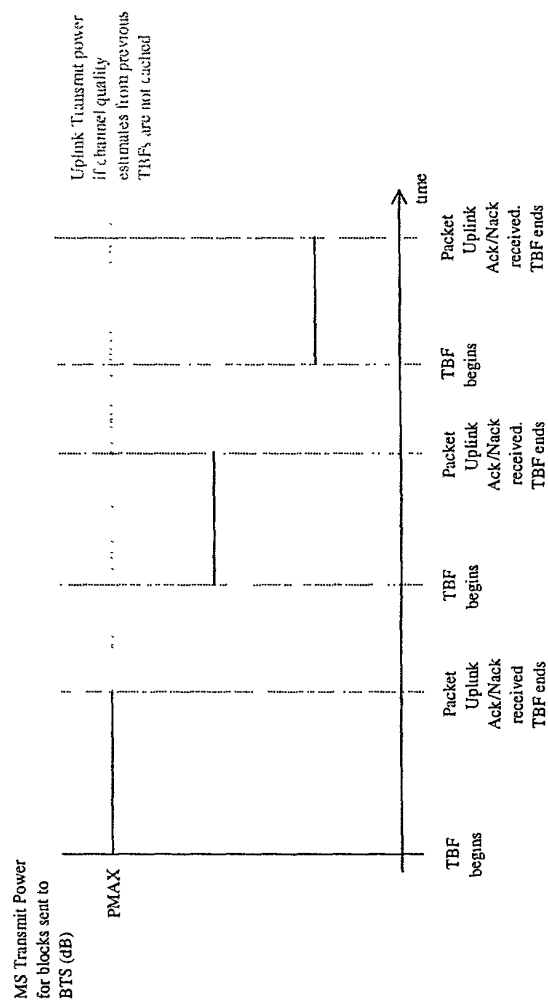


Figure 9

Key:

Explanation of variables used:

S^m = set of time slots being used by UL TBF; note that S^m has only one element if TBF is single-slot.

S_{old}^m : this relates to TBF reassignment. We use S_{old}^m to denote the set of time slots which were being used by the TBF before reassignment.

N_{tot} : used in Quick ACK mode; denotes the total number of RLC blocks received since the TBF was established.

k_{tot} : also used in Quick ACK mode; denotes the total number of RLC blocks out of N_{tot} which were received incorrectly.

$FN_{new}(s)$ = all UL RLC blocks received on time slot s after $FN_{new}(s)$ are assumed to have been transmitted using the updated value of $\Gamma_{CH}(s)$.

Quick_ACK_mode : when set, it denotes that the ULPCA is in the Quick ACK mode.

CSLA : set to be 2 at the beginning of a TBF. will be the output of the link adaptation algorithm to be used by the power control algorithm during the transmission of a TBF.

MAX_CS: set to be 2 at the beginning of a TBF. will be the output of the power control algorithm to be used by the link adaptation algorithm.

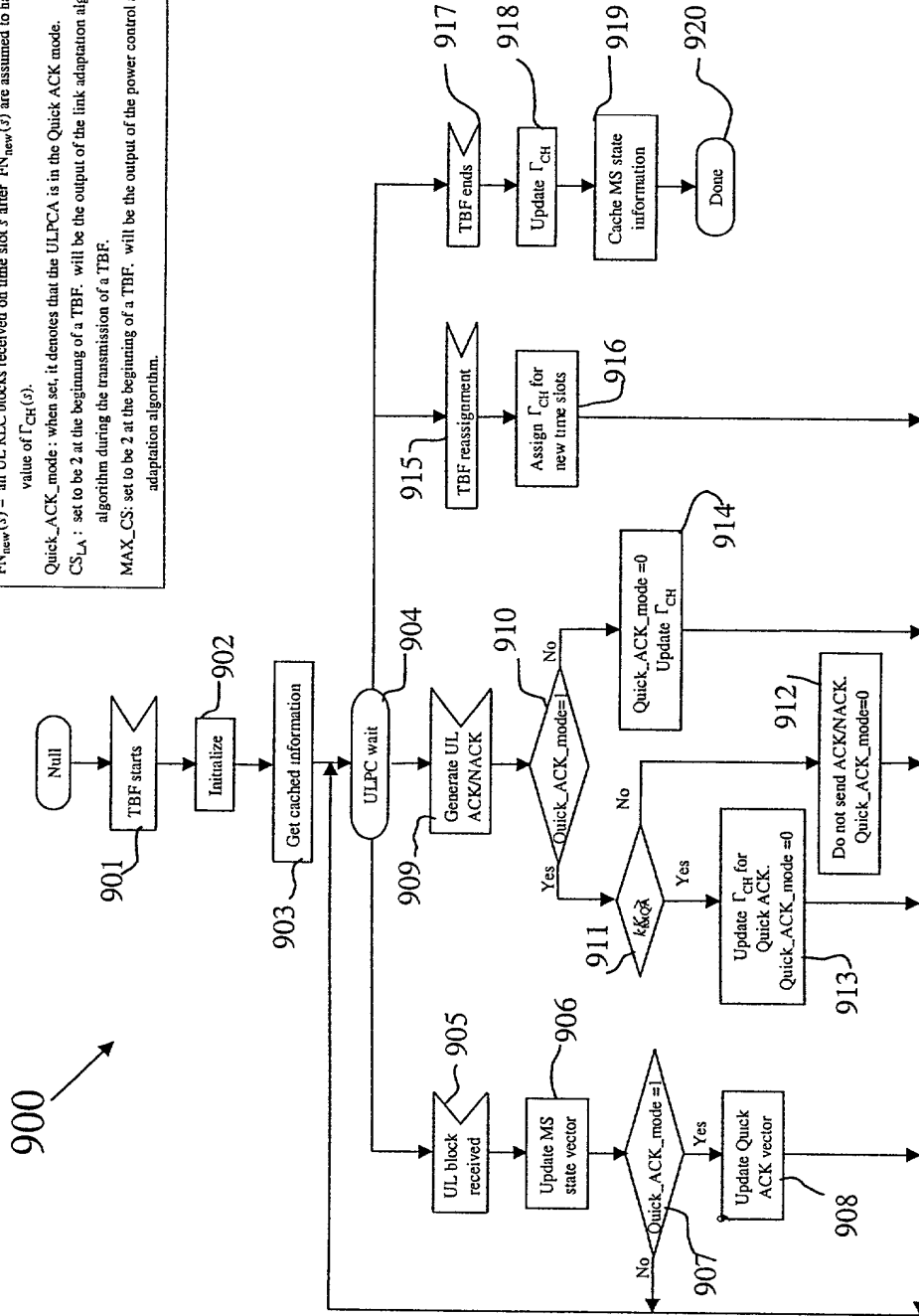


Figure 10

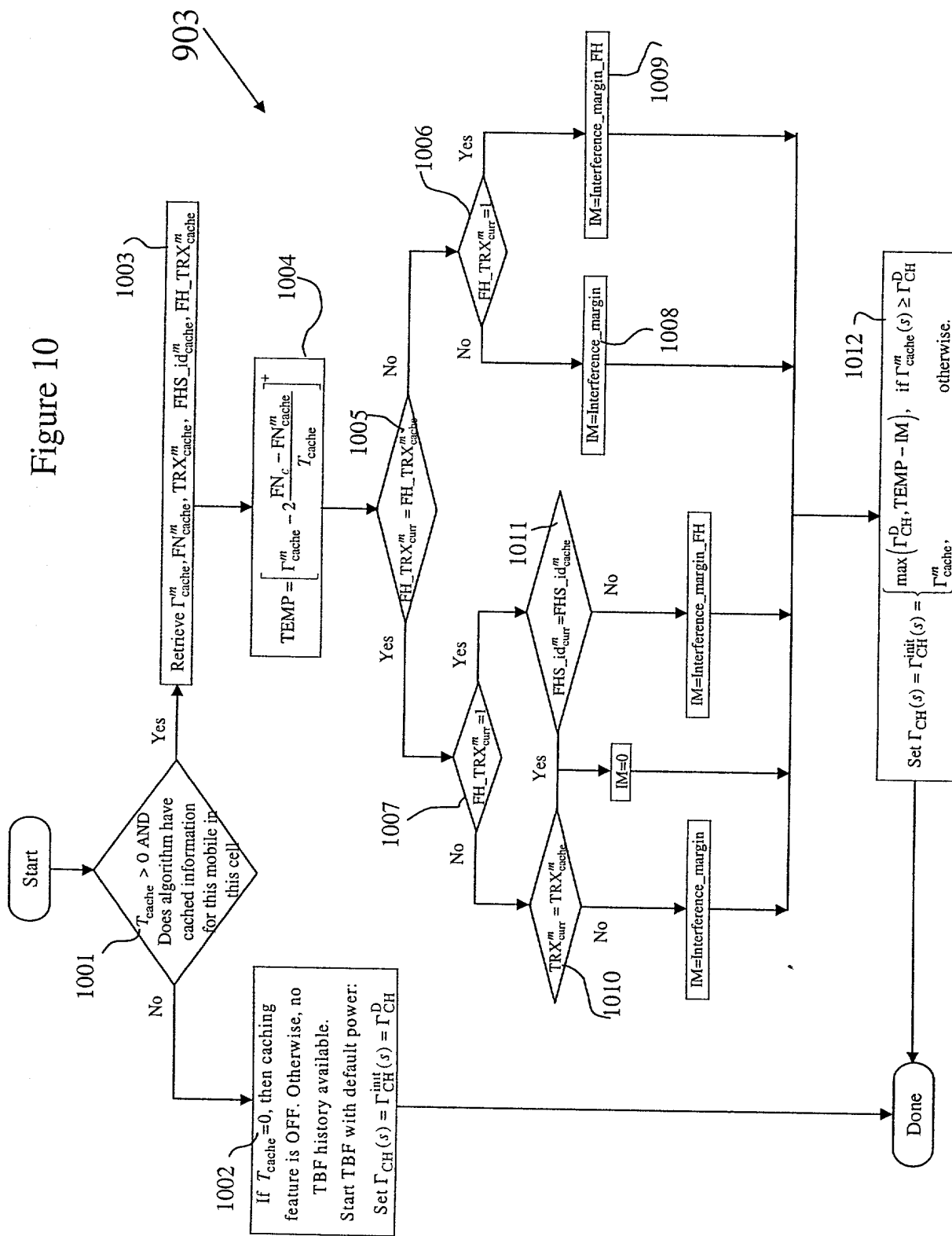


Figure 11

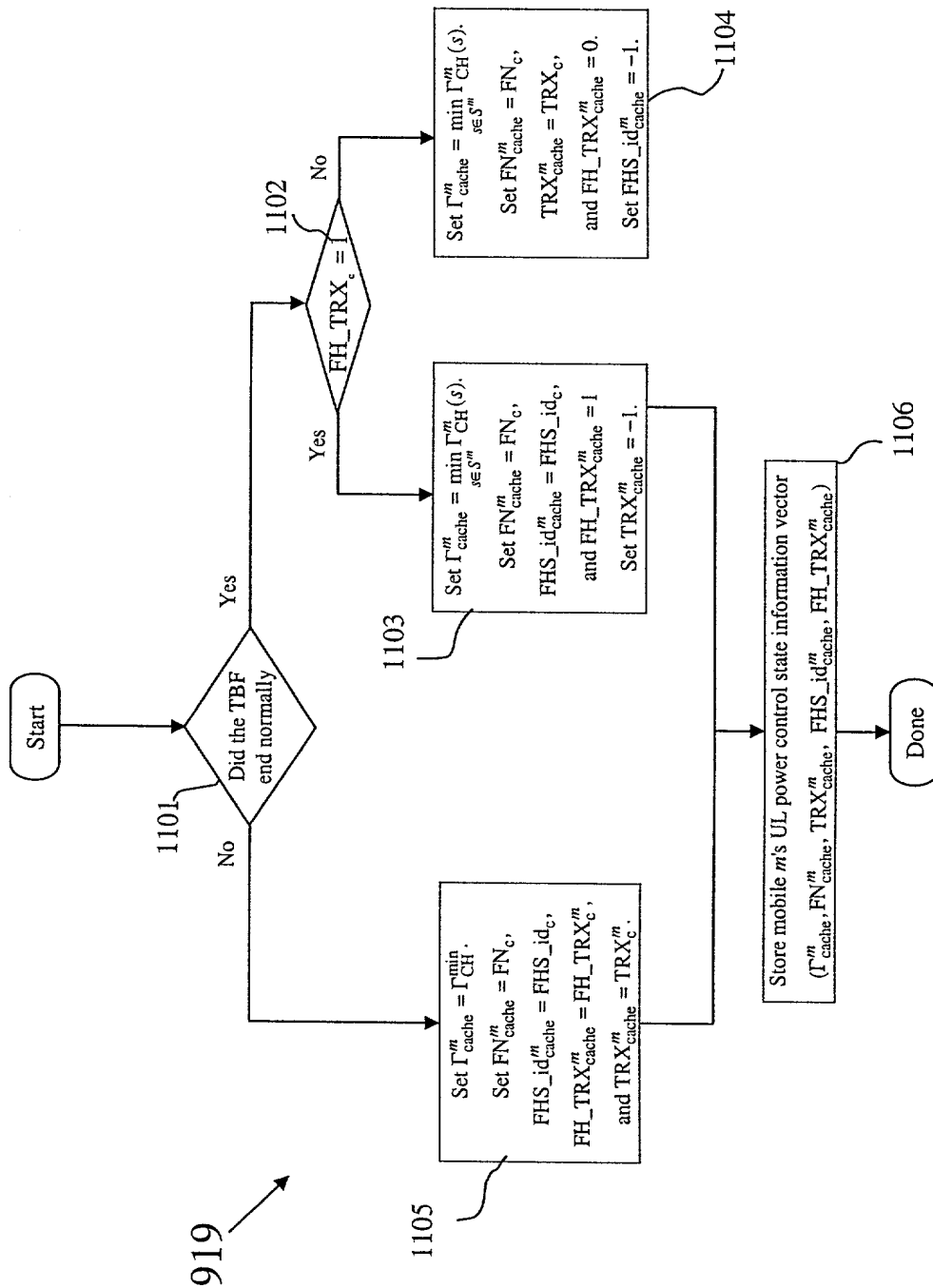


Figure 12

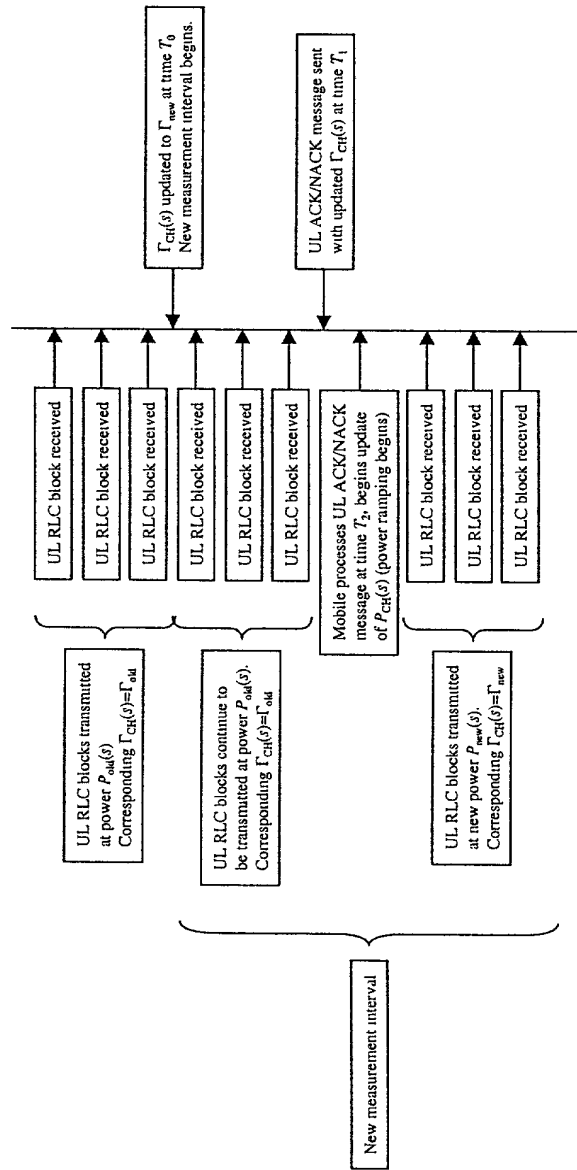


Figure 13

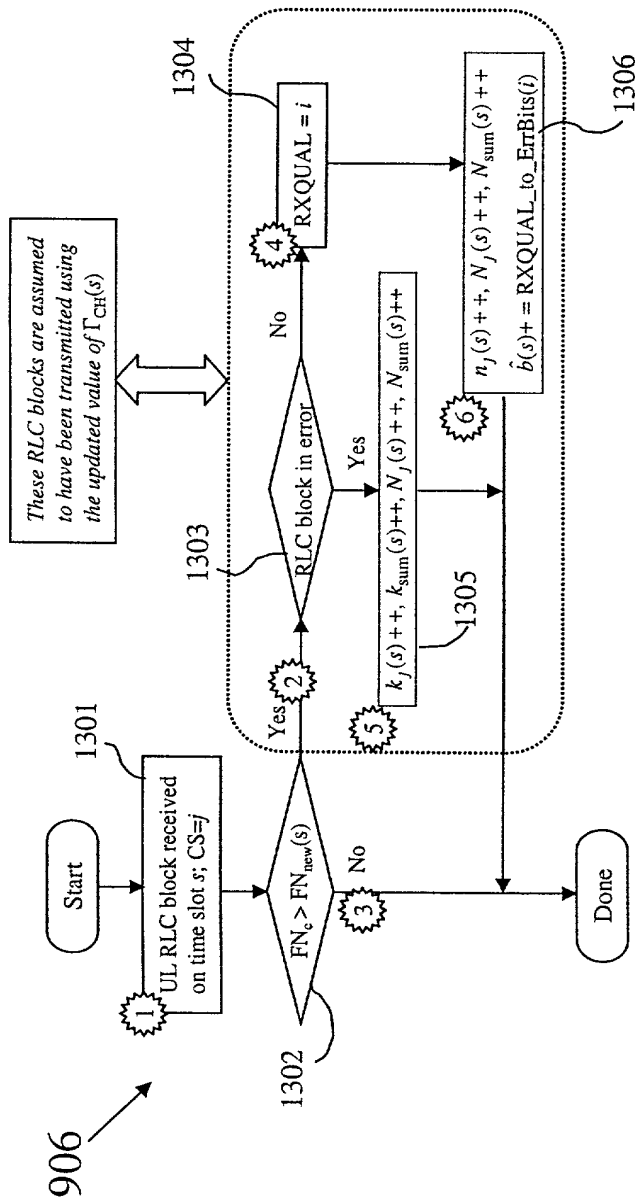


Figure 14

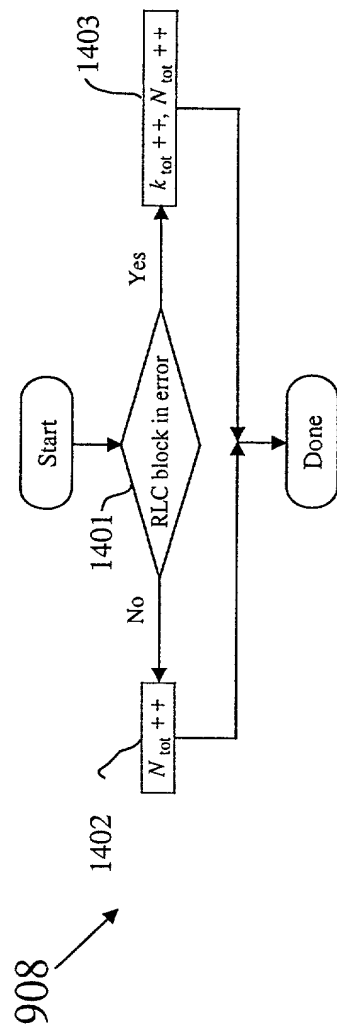
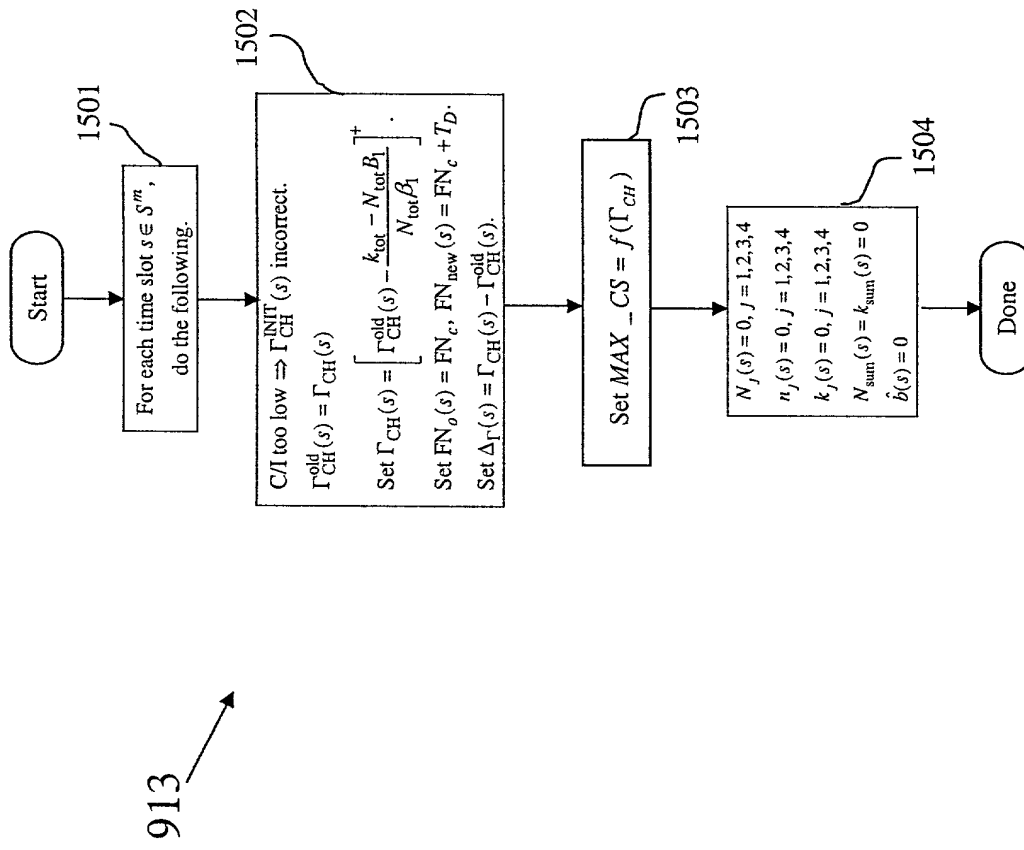


Figure 15



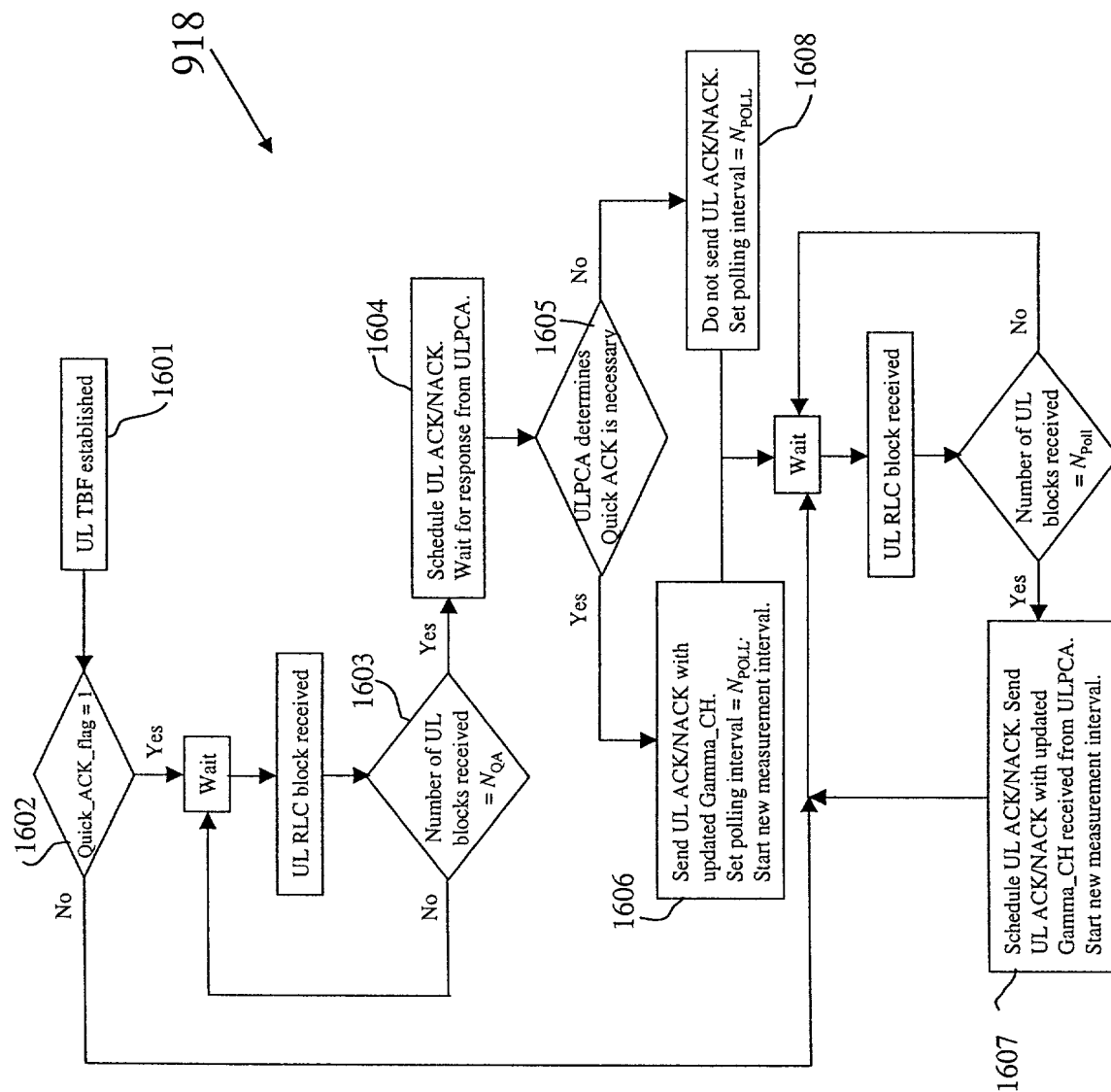
[illegible]

Figure 17

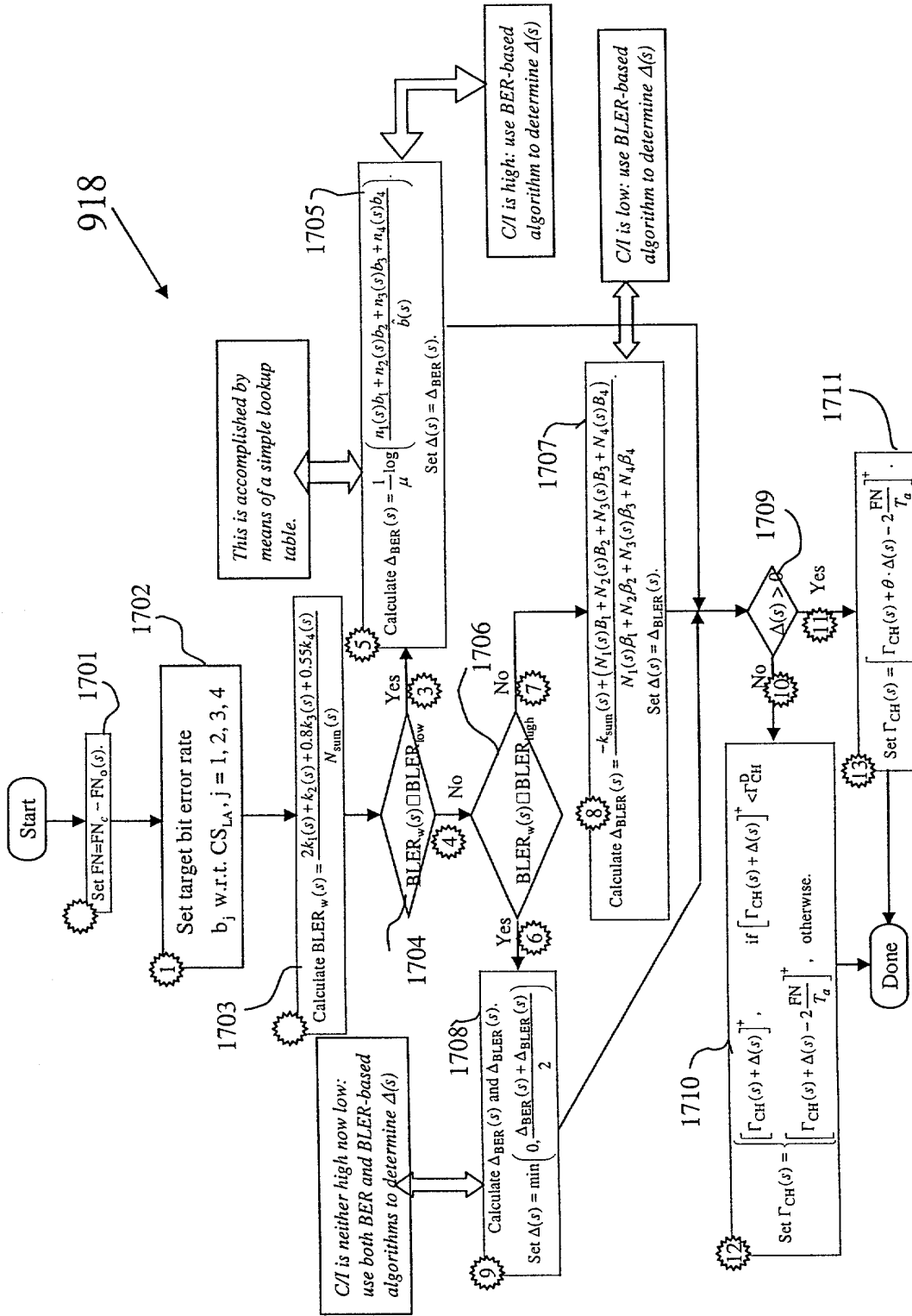
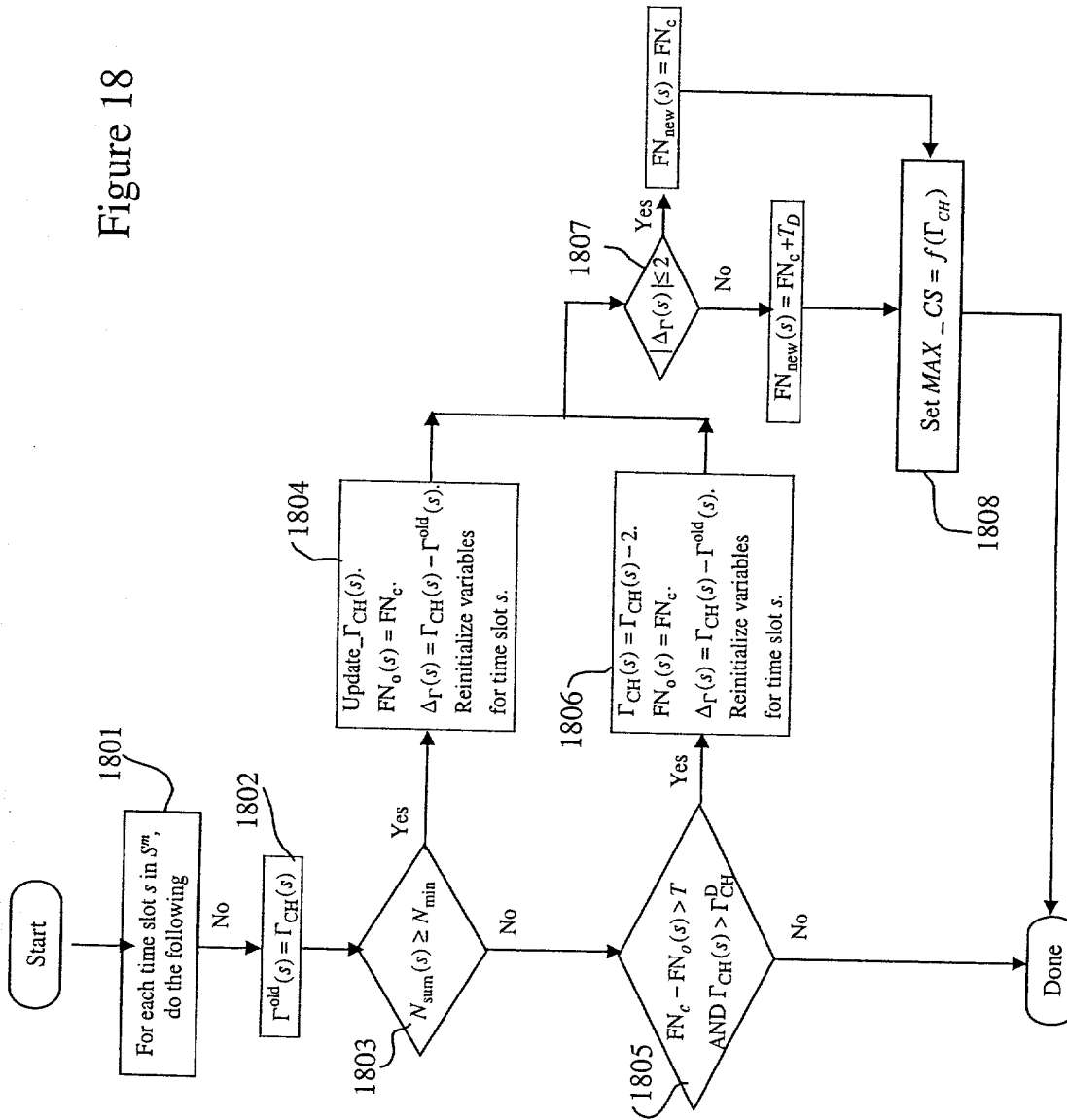


Figure 18



Key:

Reinitialization of variables
for time slot s :

- $N_j(s) = 0, j = 1, 2, 3, 4$
- $n_j(s) = 0, j = 1, 2, 3, 4$
- $k_j(s) = 0, j = 1, 2, 3, 4$
- $N_{\text{sum}}(s) = k_{\text{sum}}(s) = 0$
- $\hat{b}(s) = 0$

Figure 19

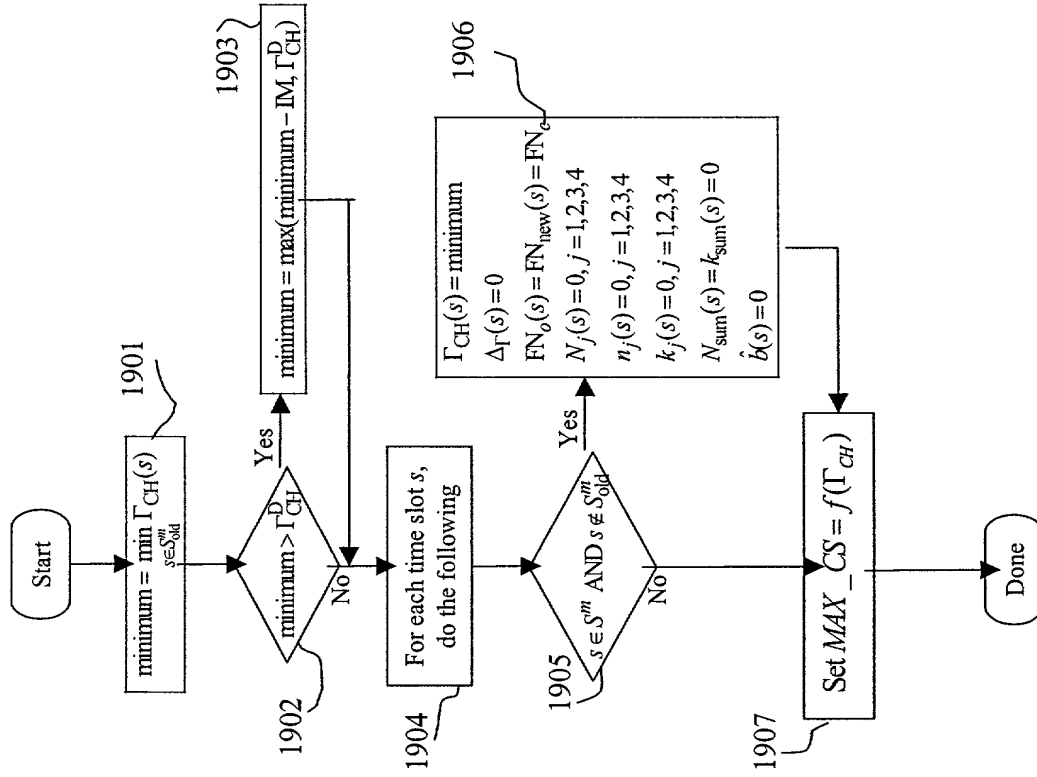


Figure 20

